

a mobile station (**MS**) communicating in a communication network and being movable therein,

said communication network comprising

a plurality of base transceiver stations being adapted to perform a communication with said mobile station (**MS**) within its coverage area,

said method comprising the steps of

processing (**S3**) location information related to the mobile station (**MS**) by comparing it with position information related to the base transceiver stations (**BTS 1A, BTS 1B, BTS 2, BTS 3**),

deciding (**S4**) on the basis of the result of said processing (**S3**), whether a first handover condition is fulfilled, and checking subscriber specifications concerning another measurement (**S5**) for a handover,

designating (**S9**) a next base transceiver station in said communication network, to which the communication with said mobile station (**MS**) is to be directed from a current base transceiver station, when the first handover condition is fulfilled,

triggering a handover (**S10**) of the communication connection of the mobile station (**MS**) from the current base transceiver station to the next base transceiver station designated in said designating step (**S10**), and performing (**S11**) the handover.

28. (New) A method according to claim 27, wherein
in said processing step (**S3**) at least one additional parameter is processed together with said location information related to the mobile station (**MS**) and position information related to the base transceiver stations (**BTS 1A, BTS 1B, BTS 2, BTS 3**).
29. (New) A method according to claim 28, wherein
said additional parameter is based on a signal quality.
30. (New) A method according to claim 27, further comprising a location information obtaining step (**S2**) comprising
a step of determining said location information related to the mobile station (**MS**) and
a step of transmitting said determined location information to a respective network device (**BSC, MSC**) adapted to perform said processing step (**S3**).

verifying (S8), whether a measurement result represents a second handover condition, and

if the result of said verifying step (S8) represents the second handover condition, initiating execution of said target cell designation step (S9) for performing the handover (S10, S11).

38. (New) A method according to claim 27, wherein the coverage area of the base transceiver station designated in said designating step (**S9**) and to which the communication connection is to be directed (**S10**) is a coverage area adjacent to the coverage area of the current base transceiver station.

39. (New) A method according to claim 27, wherein the coverage area of the base transceiver station designated in said designating step (**S9**) and to which the communication connection is to be directed (**S10**) is a coverage area not adjacent to the coverage area of the current base transceiver station.

40. (New) A method according to claim 39, wherein the coverage area not adjacent to the coverage area of the current base transceiver station to which the communication connection is to be directed (**S10**) is known to the communication network.

41. (New) A method according to claim 40, wherein the base transceiver station (**BTS**) with the coverage area not adjacent to the coverage area of the current base transceiver station, to which the communication connection is to be directed (**S10**), is a predetermined base transceiver station (**BTS**).

42. (New) A method according to claim 41, wherein the position information of the predetermined base transceiver station (**BTS**) is stored in a subscriber identity module (**SIM**) or in the mobile station (**MS**).

43. (New) A device for controlling a handover procedure for a mobile station (**MS**) communicating in a communication network and being movable therein, said communication network comprising

a plurality of base transceiver stations being adapted to perform a communication with said mobile station (**MS**) within its coverage area,
said device comprising

a processing means (**2**) for processing location information related to said mobile station (**MS**) by comparing it with position information related to base transceiver stations (**BTS**), and for deciding on the basis of the result of said processing, whether a first handover condition is fulfilled, and for checking subscriber specifications concerning another measurement for a handover,

a designating means (**4**) for designating a next base transceiver station in said communication network, to which the communication with said mobile station (**MS**) is to be switched from a current base transceiver station, when the first handover condition is fulfilled, and

a triggering means (**5**) for triggering a handover of the communication connection of the mobile station (**MS**) from the current base transceiver station to the next base transceiver station designated by said designating means (**4**).

44. (New) A device according to claim 43, wherein
in said processing means (**2**) at least one additional parameter is processed together with said location information related to the mobile station (**MS**) and position information related to the base transceiver stations (**BTS 1A, BTS 1B, BTS 2, BTS 3**).
45. (New) A device according to claim 44, wherein
said additional parameter is based on a signal quality.
46. (New) A device according to claim 43, further comprising means (**1**)
for determining location information related to the mobile station (**MS**) and
for transmitting said determined location information to a respective network device (**BSC, MSC**) performing said processing.
47. (New) A device according to claim 46, further comprising a memory means (**3**)
for memorizing location information related to the mobile station (**MS**) and position information related to the base transceiver stations (**BTS**),

48. (New) A device according to claim 46, wherein said means (1) for determining location information related to the mobile station (**MS**) and for transmitting said determined location information to a respective network device (**BSC, MSC**) performing said processing are located in the mobile station (**MS**).

49. (New) A device according to claim 46, wherein said means (1) for determining location information related to the mobile station (**MS**) and for transmitting said determined location information to a respective network device (**BSC, MSC**) performing said processing are located in a network element on the network infrastructure side.

50. (New) A device according to claim 46, wherein said means (1) for determining the location information related to the mobile station (**MS**) is adapted to perform said determination according to at least one of the following methods:

- locating by a global positioning system;
- locating by a time of arrival;
- locating by an observed time difference.

51. (New) A device according to claim 43, further comprising a measurement means (6) being responsive to the subscriber specifications and adapted to check, whether a further measurement is to be performed, select a type of further measurement, if a measurement is to be performed, execute the selected measurement, verify, whether a measurement result represents a second handover condition, and if said second handover condition is verified, forwarding the measurement result to said handover condition processing means (2) for performing the handover.

total 635555
concluded